

REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 10-19 are pending in this case. Claim 16 is amended and Claim 19 is added by the present amendment. The amendment to Claim 16 incorporates the subject matter of Claim 10 into Claim 16 to put Claim 16 in independent form. Thus, the amendment to Claim 16 adds no new matter. Claim 19 is supported in the originally-filed specification at least at page 11, lines 5-7, and, thus, adds no new matter.

In the outstanding Office Action, Claims 10-15 were rejected under 35 U.S.C. § 102(b) as anticipated by Foxlin (U.S. Patent No. 5,645,077), and Claims 16-18 were indicated as including allowable subject matter.

Applicant gratefully acknowledges the indication of allowable subject matter. Claim 16 is re-written in independent form, as suggested by the outstanding Office Action. Thus, Claim 16 and Claims 17 and 18, which depend therefrom, are believed to be in condition for allowance.

Applicant now traverses the rejection of Claims 10-15 under 35 U.S.C. § 102(b).

Claim 10 is directed to a method for measuring movement of a solid and includes:

- a series of measuring acceleration of the solid and making double integration of the measurements, to obtain successive values of the first translation;
- a series of absolute measurement of at least one second degree of freedom of the solid, the second degree of freedom being a rotation, by at least one rotation sensor;
- converting the measurement of rotation into a measurement of translation; and
- using the translation measurement to update the first translation.

The outstanding Office Action cites Foxlin as teaching all the features of Claim 10.

Foxlin describes an inertial orientation tracker with drift compensation.

The outstanding Office Action at page 3 cites Foxlin, at column 3, lines 54-65, as teaching “converting the measurement of rotation into a measurement of translation; and using the translation measurement to update the first translation,” as recited in Claim 10. However, Foxlin describes using a sensor to generate signals that correspond to rotational accelerations or rates of the body and coupling the sensor to a signal processor for generating orientation signals corresponding to those rotational accelerations or angular rates. At the cited portion, Foxlin describes generating an orientation signal relative to the external reference frame corresponding to an angular rate generated by a first sensor.

Foxlin does not teach or suggest converting a measurement of rotation into a measurement of translation and using a translation measurement to update a first translation, as recited in Claim 10. In Foxlin, the angular rate is not converted to a translation and used to update a first translation but, rather, a corresponding orientation signal relative to the external reference frame is generated from the angular rate. Thus, Foxlin fails to teach or suggest both converting into a measurement of translation and using the translation, as recited in Claim 10.

Accordingly, Applicant respectfully requests that the rejection under 35 U.S.C. § 102(b) of Claim 10 and Claims 11-15, which depend therefrom, be withdrawn.

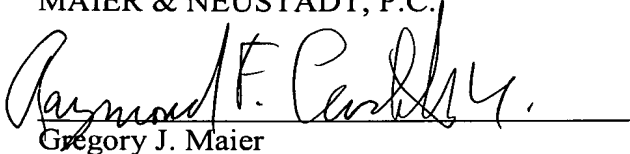
Claim 19 is directed to a method of measuring movement of a solid and, like Claim 10, includes “converting the measurement of rotation into a measurement of translation; and using the translation measurement to update the first translation.”

As discussed above with respect to Claim 10, Foxlin fails to teach or suggest at least these features of Claim 19. Further, Foxlin uses velocity sensors. Thus, Foxlin fails to teach or suggest the claimed measurement using an acceleration sensor and that “measured acceleration of gravity is suppressed to determine the acceleration of the solid,” as recited in Claim 19. Thus, Applicant respectfully submits that Claim 19 is patentable over Foxlin.

Accordingly, the outstanding rejections are traversed and the pending claims are believed to be in condition for formal allowance. An early and favorable action to that effect is, therefore, respectfully requested.

Respectfully submitted,

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A handwritten signature in black ink, appearing to read "Raymond F. Cardillo, Jr.", is written over a horizontal line.

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